# DEPARTMENT OF HEALTH AND HUMAN SERVICES NATIONAL INSTITUTES OF HEALTH NATIONAL LIBRARY OF MEDICINE MINUTES OF THE BOARD OF REGENTS MEETING (VIRTUAL MEETING) February 8, 2022

The 189th meeting of the Board of Regents (BOR) was convened remotely on February 8, 2022, at 10 a.m. The meeting was open to the public from 10 a.m. to 3:45 p.m., followed by a closed session lasting until 4:15 p.m. The meeting adjourned at 4:15 p.m.

## **MEMBERS PRESENT** (Appendix A)

Dr. Lourdes Baezconde-Garbanati, University of Southern California

Dr. Suzanne Bakken, Columbia University

Dr. James Cimino, University of Alabama at Birmingham

Dr. Kristi Holmes, Northwestern University

Dr. S. Claiborne Johnston, The University of Texas at Austin

Ms. Jennie Lucca, The NIH Children's Inn

Dr. Omolola Ogunyemi, Charles R. Drew University of Medicine and Science

Mr. Neil Rambo, New York University School of Medicine, Chair (retired)

Dr. Heidi Rehm, Massachusetts General Hospital

Dr. Nancy Smider, Epic Systems Corporation

#### EX OFFICIO AND ALTERNATE MEMBERS PRESENT

Dr. Teeb Al-Samarrai, Office of the Surgeon General, U.S. Public Health Service

Col. Thomas Cantilina, United States Air Force

Col. Kent DeZee, United States Army

Dr. Joseph Francis, Veterans Health Administration

RADM Denise Hinton, Office of the Surgeon General, U.S. Public Health Service

Dr. Lauren Maggio, Uniformed Services University of the Health Sciences

Dr. Mary Mazanec, Library of Congress

Dr. Brent Miller, National Science Foundation

Mr. Paul Wester, National Agricultural Library, U.S. Department of Agriculture

## EX OFFICIO MEMBERS NOT PRESENT

Dr. Hassan Tetteh, United States Navy

#### **CONSULTANTS PRESENT**

Ms. Jane Blumenthal, University of Michigan (retired)

#### SPEAKERS AND INVITED GUESTS PRESENT

Dr. S. Trent Rosenbloom, Vanderbilt University

Dr. Sarah Rossetti, Columbia University

#### MEMBERS OF THE PUBLIC PRESENT

Mr. Glen Campbell, Friends of the National Library of Medicine

Dr. Clarion Johnson, Friends of the National Library of Medicine

Ms. Loretta Jurnak, Technical Resources International, Inc.

Dr. Barbara Redman, New York University/Friends of the National Library of Medicine

Ms. Joyce Wanga, Technical Resources International, Inc.

#### FEDERAL EMPLOYEES/CONTRACTORS PRESENT

Dr. Patricia Flatley Brennan, Director, NLM

Mr. Jerry Sheehan, Deputy Director, NLM

Mr. Terry Ahmed, Division of Library Operations, NLM

Ms. Anne Altemus, Office of Communications and Public Liaison, NLM

Mr. Doug Atkins, Division of Library Operations, NLM

Ms. Dianne Babski, Division of Library Operations, NLM

Mr. Philip Banh, Division of Library Operations, NLM

Dr. Dennis Benson, National Center for Biotechnology Information, NLM

Dr. Olivier Bodenreider, Lister Hill National Center for Biomedical Communications, NLM

LCDR Shamika Brooks, Office of the Surgeon General, U.S. Public Health Service

Ms. Danielle Calle, Division of Library Operations, NLM

Mr. In Hye Cho, Lister Hill National Center for Biomedical Communications, NLM

Mr. Todd Danielson, Office of the Director, NLM

Dr. Heather Dobbins, Lister Hill Center for Biomedical Communications, NLM

Mr. Ivor D'Souza, Office of Computer and Communications Systems, NLM

Ms. Mitzi Diley, Executive Office, Office of the Director, NLM

Dr. Kathel Dunn, Division of Library Operations, NLM

Ms. Kathy Elliott, Office of Acquisitions, Contracts Branch II, NLM

Dr. Anna Fine, National Center for Biotechnology Information, NLM

Dr. Valerie Florance, Office of the Director, NLM

Ms. Kathryn Funk, National Center for Biotechnology Information, NLM

Ms. Joanna Goldfarb, Lister Hill National Center for Biomedical Communications, NLM

Dr. Elisa Golfinopoulos, National Center for Biotechnology Information, NLM

Mr. Slava Gorelenkov, National Center for Biotechnology Information, NLM

Mr. Derek Griffing, Lister Hill Center for Biomedical Communications, NLM

Dr. Lynda Hardy, Division of Extramural Programs, NLM

Mr. David Higgins, Office of the Director, NLM

Dr. Zoe Huang, Division of Extramural Programs, NLM

Dr. Michael Huerta, Office of Strategic Initiatives, NLM

Ms. Ebony Hughes, Division of Extramural Programs, NLM

Ms. Christine Ireland, Division of Extramural Programs, NLM

Mr. Douglas Joubert, Division of Library Operations, NLM

Ms. Michelle Krever, Division of Extramural Programs, NLM

Dr. David Landsman, National Center for Biotechnology Information, NLM

Ms. Wei Ma, Office of Computer and Communications Systems, NLM

Mr. James Marcum, Lister Hill Center for Biomedical Communications, NLM

Ms. Jennifer Marill, Division of Library Operations, NLM

Ms. Margaret McGhee, Division of Library Operations, NLM

Ms. April Merriwether, Office of Acquisitions, Contracts Branch II, NLM

Dr. Virginia Meyer, Office of the Director, NLM

Ms. Jody Nurik, Office of Communication and Public Liaison, NLM

Dr. Kim Pruitt, National Center for Biotechnology Information, NLM

Ms. Queenmoore Okeke, Office of the Director, NLM

Dr. Richard Palmer, Division of Extramural Programs, NLM

Ms. Amie Park, Division of Extramural Programs, NLM

Mr. Robert Pines, Office of Communications and Public Liaison, NLM

Mr. Troy Pfister, Office of the Director, NLM

Ms. Marie Preston, Division of Library Operations, NLM

Dr. Kimberly Pruitt, National Center for Biotechnology Information, NLM

Dr. Jeffrey Reznick, Division of Library Operations, NLM

Ms. Christina Robinson, Office of the Director, NLM

Ms. Leigh Samsel, Office of Strategic Initiatives, NLM

Dr. Valerie Schneider, National Center for Biotechnology Information, NLM

Dr. Stephen Sherry, National Center for Biotechnology Information, NLM

Ms. Nicole Sroka, Office of the Director, NLM

Dr. Meryl Sufian, Division of Extramural Programs, NLM

Ms. Samantha Tempchin, Division of Extramural Programs, NLM

Ms. Kimberly Thomas, Office of Strategic Initiatives, NLM

Dr. Tony Tse, National Center for Biotechnology Information, NLM

Dr. Yanli Wang, Division of Extramural Programs, NLM

Ms. Rebecca Warlow, Division of Library Operations, NLM

Ms. Samantha Kennefick Wilairat, Associate Fellow, Office of the Director, NLM

Ms. Amanda Wilson, Division of Library Operations, NLM

Dr. Jane Ye, Division of Extramural Programs, NLM

Dr. Maryam Zaringhalam, Office of Strategic Initiatives, NLM

Dr. Teresa Zayas Cabán, Office of the Director, NLM

#### I. CALL TO ORDER AND INTRODUCTORY REMARKS

Neil Rambo, Chair, BOR

Mr. Rambo called the meeting to order, welcoming attendees to the meeting. Mr. Rambo welcomed the two new fully appointed board members:

- Dr. James Cimino, Director of the Informatics Institute, at the University of Alabama at Birmingham Heersink School of Medicine, Birmingham, Alabama
- Dr. Omolola Ogunyemi, Director for the Center for Biomedical Informatics, at the Charles R. Drew University of Medicine and Science, Los Angeles, California

The meeting was broadcast to the public via streaming video at https://videocast.nih.gov.

#### II. REPORT FROM THE OFFICE OF THE SURGEON GENERAL

RADM Denise Hinton, Deputy Surgeon General, Office of the Surgeon General, U.S. Public Health Service

Dr. Teeb Al-Samarrai, Director of Science and Policy, Office of the Surgeon General, U.S. Public Health Service

RADM Denise Hinton, who was recently appointed Deputy Surgeon General (DSG), updated the BOR on the U.S. Public Health Service (USPHS) Commissioned Corps performance and projected developments. She highlighted the Corps' broad, yet specialized skillset spanning eleven professional disciplines and the rapid response to national and global health crises, such as the 2017 US hurricanes and the Ebola outbreaks. Deployments have increased over the last five years, with the most intensive deployment yet addressing the COVID-19 pandemic. More than 4,500 health professionals have been deployed on the frontlines of both national and international public health responses.

In Fiscal Year (FY) 2023, the Office of the Surgeon General (OSG) will first focus on building a Ready Reserve of highly specialized officers, who are able to deploy as a sustainment force for no longer than twenty days and backfill essential health roles as needed. The Public Health Emergency Response Strike Team (PHERST) program, under development since FY21, allows for both immediate deployment and longer rotations during health crises. When not deployed, PHERST can also be detailed to agencies to address staff shortages, allowing for interdisciplinary and integrated training. The importance of ongoing Corps training in maintaining officer preparedness and awareness on various fronts was emphasized.

Dr. Al-Samarrai provided updates on OSG's external-facing activities, USPHS reports, and partnerships. OSG is prioritizing healing from the COVID-19 pandemic, with a focus on mental health and community building. Since September 2021, OSG has focused on improving overall vaccine confidence and, specifically, vaccine administration amongst children. A community toolkit was introduced in November 2021 to identify online health misinformation and provide guidance for professionals to help mitigate the spread of COVID-19.

In December of 2021, the OSG released "Protecting Mental Health," a youth mental health advisory which is addressing the ongoing crisis and its exacerbation due to COVID-19. The advisory's first launch was in Los Angeles, where the Surgeon General (SG) met with entertainment professionals and the California SG to ensure positive mental health messaging in media and school re-openings.

The SG later testified before the Senate Finance Committee on the prioritization of youth mental health investment. Recommendations from this advisory committee included the provision of adequate information, broader access to high quality and culturally relevant mental healthcare, as well as timely data collection and research relating technology to youth mental health. OSG has also requested greater transparency in how various technology companies collect data to further examine the relationship between youth mental health and technology.

OSG supports the wellbeing of health care workers through engagement with internal and external stakeholders, with the SG serving as cochair of National Academy of Medicine Action Collaborative on Clinician Well-being and Resilience. There is a national focus on mental health, specifically on community building to alleviate the loneliness and isolation from the pandemic. Dr. Al-Samarrai highlighted the need for a national dialog on COVID-19, which OSG hasfostered via fireside chats and podcasts.

Beyond COVID-19, USPHS has a goal of issuing six perspective pieces each year on behalf of OSG. USPHS has collaborated with the NIH on "Oral Health in America" which identifies ongoing health disparities and their role in oral hygiene. There are SG reports underway and a

tobacco disparities report is expected for release in late 2022.

BOR members discussed cultural relevance and engagement with diverse populations in other languages, notably Spanish. Members also discussed actionable steps in childhood mental health outcomes since implementation has not yet been overseen. They highlighted the importance of first normalizing conversations about these topics on an individual to governmental level and then employing data collection to measure impact.

#### III. SEPTEMBER 2021 MINUTES AND FUTURE MEETINGS

Neil Rambo, Chair, BOR

Mr. Rambo noted the listed dates for future BOR meetings, including the addition of the Winter BOR meeting date of February 6-7, 2024. There were no objections or conflicts noted.

**Motion:** The BOR approved the motion to accept the Winter BOR Meeting date of February 6-7, 2024.

**Motion:** The BOR approved the motion to accept the minutes from the September 2021 meeting.

#### IV. REPORT FROM THE NLM DIRECTOR

Dr. Patricia Flatley Brennan, Director, NLM

Dr. Brennan welcomed the BOR and introduced the NLM leadership team. She recognized an NIH leadership transition to Dr. Larry Tabak as Acting Director and Dr. Tara Schwetz as Acting Principal Deputy. Progress was noted within the three pillars of NLM's strategic plan: broader outreach and engagement, enhancement of data science and dissemination, and formation of a data centric workforce. It is anticipated that the May 2022 BOR meeting will be held remotely, and that the September 2022 BOR meeting may be hybrid.

Dr. Brennan highlighted the National Center for Biotechnology Information (NCBI) support throughout the COVID pandemic, which has simplified the submission process for COVID-related sequences to GenBank® and the SequenceRead Archive, in addition to metadata and viral annotation updates. Eugene Koonin's group has identified numerous insertions to the COVID spike protein, potentially increasing immune escape and with implications for future vaccines and antivirals. There is continued progress on the NIH Rapid Acceleration of Diagnostics (RADx) program and further research into recovery initiatives.

Dr. Brennan reviewed improved operations at NLM with particular emphasis on work occurring across the NLM in Library Operations, NCBI, the Office of Computer and Communications Systems and the Lister Hill National Center for Biomedical Communications (LHC). NLM Digital Collections (<a href="https://collections.nlm.nih.gov/">https://collections.nlm.nih.gov/</a>) system is now cloud-based and now contains the Profiles in Science Program. The Medical Text Automated Indexer (MTIA) is being used for automated indexing of MEDLINE citations and allows NLM to provide quicker access to literature.

Dr. Brennan shared a brief video on research in our NLM Intramural Research Program through Aravind Iyer's lab. Dr. Iyer's group focuses on apoptosis and functional domain conservation across species, which is enabled by the NCBI RefSeq Functional Elements Resource. The video is available on the NLM YouTube page at <a href="https://www.youtube.com/user/NLM/NIH">https://www.youtube.com/user/NLM/NIH</a>

Dr. Brennan noted that the Extramural Programs division awarded several new NLM Training Grant Programs, now including 18 pre- and post-doctoral programs receiving 5-year awards. There were two new sites and 14 new research program grants. The renovations to the Lister Hill Center building (38A), the NLM Data Center, and Building 38 were highlighted.

Regarding the NLM budget for FY22, Dr. Brennan noted that NLM is monitoring the appropriations process and NLM's FY22 budget may be approximately \$475 million. NLM is also monitoring the development of an omnibus appropriations bill for FY22. Challenges that the NLM must address include multiyear building renovation plans, strategic partnerships, and modernizing our research facilities.

Dr. Brennan called for a moment of silence in memory of five recently deceased staff members who dedicated their careers to NLM and society at large. She noted personnel changes ongoing recruitments for leadership positions. She charged the BOR to study the structure and contributions of its Working Groups, to be further discussed at a subsequent BOR meeting.

Dr. Teresa Zayas Cabán provided legislative updates focused on FY22 appropriations and noted NLM is funded by a continuing resolution at FY21 appropriation levels until February 18, 2022. The House introduced H.R. 6617, a continuing resolution which would continue federal funding until March 11, 2022 at FY21 appropriation levels. The Cures 2.0 Act, introduced in November 2021, focuses on delivery of new drugs and treatments vs. research and development under the previous Cures Act, and includes a focus on patients and caregivers including an educational program, diversification of clinical trials, and improving the usability of ClinicalTrials.gov. Dr. Zayas Cabán noted the availability of a draft of the PREVENT Pandemics Act to bolster public health response and preparedness in the wake of COVID-19.

OSTP released the report of the Scientific Integrity Task Force report in January 2022 [NLM's Jerry Sheehan co-chaired the Task Force]. It identifies directions for strengthening Federal scientific integrity policies, with a focus on equity. The NIH Data Management and Sharing policy will become effective in January 2023, and NLM is supporting outreach and training, as well as development of additional guidance to stakeholders. Dr. Cabán alerted BOR members to the request for comments on possible updates to NIH Genomic Data Sharing Policy, as well as draft FDA guidance remote data collection as part of clinical trials via digital health technologies, and on the draft version 3 of the United States Core Data for Interoperability.

#### V. WORKING GROUP BREAKOUTS

BOR members divided into four breakout groups. Group representatives summarized their discussions later in the meeting.

#### VI. WORKING GROUP REPORTS AND DISCUSSION

#### **Strategic Planning**

Ms. Jane Blumenthal reported for the Strategic Planning Working Group. The Working Group

discussed data management and reporting in support of NLM's Strategic Plan. Efforts are underway to facilitate enhanced NLM institutional awareness and understanding of progress on the strategic plan while trying to reduce reporting burden on staff. The group discussed collaboration between the NIH Office of Computer and Communications Systems and Office of Strategic Initiatives to develop a multipurpose internal tracking tool. Planned efforts include tracking new initiatives, mapping collected data, and characterizing NLM activities to improve information management across the institution. The group also discussed an effort to automate project categorization into Research, Conditions, and Disease Categories (RCDC), the official source utilized by NIH to categorize spending. RCDC categories will be maintained to help overcome the limitations of automated categorization tools.

#### **Research Frontiers**

Dr. S. Claiborne Johnston reported for the Research Frontiers Working Group. The Working Group continued the discussion of challenges in achieving diversity, equity, and inclusion (DEI), with a focus on diversity in the intramural research program. The group reviewed current diversity statistics and discussed proposals to improve DEI, including mobilizing resources NIH-wide to increase recruitment and developing pipeline programs for undergraduate students. More discussion is needed to determine how to attract diverse candidates to pipeline and training programs. The group also discussed ways to measure outcomes to increase responsiveness and reliance on data in fostering DEI.

BOR members discussed implementing efforts across NIH to recruit cohorts of diverse candidates, noting the potential for health equity research to draw interest from minority candidates. The potential to apply lessons learned by the extramural Faculty Institutional Recruitment for Sustainable Transformation Program was noted. From the perspective of the Department of Veterans Affairs, Dr. Joseph Francis noted health equity as an emerging Designated Research Area for Congressional funding. He emphasized the development of advanced and automated techniques to combat health disparities and increase quality of care.

#### **Public Services**

Dr. Lourdes Baezconde-Garbanati reported for the Public Services Working Group. Working Group membership changes since the last report-out were noted. The ClinicalTrials.gov Modernization effort, aimed at improving ease of use and providing added value for researchers, has entered its third stage – implementation. The group discussed three ongoing research initiatives in support of the modernization effort, noting the recent ClinicalTrials.govand Protocol Registration and Results System (PRS) beta releases. Collection of qualitative and quantitative metrics will continue as new features are added to the beta site. Planned features include an enhanced search experience and expanded study record history. BOR members discussed the targeted release of beta features in 1 to 3 month increments over the coming year, as well as considerations for retiring the classic site.

#### **Collections**

Dr. Kristi Holmes reported for the Collections Working Group. The Working Group discussed three ongoing initiatives. The NIH Preprint Pilot, aimed at accelerating discoverability of NIH research, has demonstrated technical feasibility and operates in alignment with NIH guidance. Survey results have indicated that providing preprint publications has had no negative impact on trust in information provided by NLM. Next steps include applying lessons learned from the program to consider extension of the pilot across a broader spectrum of NIH research. The NIH Comparative Genomics Resource (CGR) is a five-year initiative to develop a cloud-oriented tool for comparative genomic research. Stakeholders include the NIH CGR Steering Committee and the NLM BOR CGR Working Group. The CGR Working Group discussed leveraging the CGR Web Portal and publishing perspective articles to engage with external stakeholders in the research community. The Working Group also discussed the ongoing effort to consider the inclusion of NLM data sets in NLM collections based on the update to the NLM Collections Guidelines in October 2019. The effort will consider further refinements to the Collections Guidelines, including data workflows, versioning, and the NLM retention policy.

Following the four Working Group reports, Dr. Brennan thanked the Working Groups and acknowledged the volunteered efforts of external members to participate in and enhance NLM Working Groups. She emphasized the important role of the Working Groups as a bridge between NLM and external stakeholders. Dr. Brennan reviewed the significance of NIH investments in the ClinicalTrials.gov and CGR initiatives, highlighting NIH confidence in NLM's capacity to lead these efforts with the support of the Working Groups.

#### VII. PREPARING THE NLM'S RACIAL AND ETHNIC EQUITY PLAN

Troy Pfister, Operations Manager, Office of the Director Dr. Maryam Zaringhalam, Data Science and Open Science Officer, Office of Strategic Initiatives, NLM

The Racial and Ethnic Equity Plan (REEP) was developed by the NLM Inclusion, Diversity, Equity and Accessibility (IDEA) Council in response to an executive order, as well as efforts from the NIH UNITE initiative to dismantle structural racism, diversify NIH's internal workforce, and enhance the inclusivity of the internal culture at NIH. Equity in this context is defined as the provision of appropriate tools and resources with the understanding that individuals have different needs and backgrounds. Dr. Zaringhalam noted the goals of the REEP are to (1) use the Racial and Ethnic Equity Lens framework at an individual, interpersonal, and institutional level; (2) identify and dismantle disparities in NLM's workforce; (3) enhance the diversity of the workforce. Flexibility, accountability, and learning is supported by NIH leadership so that progress can be quantified in both the short and long term.

The IDEA Council preliminarily assessed the diversity and culture of NLM's workforce using NIH demographic data, Federal Employee Viewpoint Survey (FEVS) data, and staff input through four forums in the last year. They found that more qualitative data is required so that the perspectives of ethnic and racial minority staff members may be centered and understood. Such input could be gathered through focus groups and cultural assessments. To build on this analysis and design the REEP, volunteers were recruited across the NLM, which reinforces the importance of a network

of change advocates. Continuous feedback from leadership and staff members will be solicited to refine the REEP, specifically regarding suggested additions and revisions to the proposed action items and associated measures. Updates will be incorporated into the finalized plan submitted for NIH approval by April 1, 2022 and will then move into the implementation phase. The plan will be redefined and refined as necessary after one year, following an evaluation and reporting phase.

Board members discussed the theme of sustained intent and action and metrics of success within the levels of the REEP framework. The facilitation of transparency and concurrent evaluation, coupled with networking via extant resources, such as the REEP Wiki page and NLM communication channels, can help to socialize the process and create interpersonal change. Trust-building practices such as focus groups, workshops, and external facilitation were recommended to foster and encourage shared perspectives. Internships and mentorships were suggested to promote intramural staff diversity; it was noted that a hospitable office culture would benefit retention. Public reflection on the part of NLM can intersect with the ClinicalTrials.gov modernization effort by addressing equitable study design, serving to normalize and center equity in research.

# VIII. REPORT OUT OF THE 25X5 SYMPOSIUM TO REDUCE DOCUMENTATION BURDEN ON US CLINICIANS BY 75% BY 2025

Dr. Sarah Rossetti, Assistant Professor of Biomedical Informatics, Columbia University Dr. S. Trent Rosenbloom, Vice Chair of Faculty Affairs, Professor of Biomedical Informatics, Vanderbilt University

The effort to reduce documentation initiated from the American College of Medical Informatics (ACMI) 2020 Winter Symposium and a Journal of American Medical Informatics Association (JAMIA) Special Issue. From January to February 2021, participants from medical organizations, advocacy groups, and academia met virtually to discuss ongoing efforts to engage stakeholders with similar goals, potential approaches, and community building. The Symposium was divided into six weekly sessions, with the first four hosting keynote speakers, industry panels and discussions. The final two sessions formed breakout groups based on the American Nursing Informatics Association framework which developed short-, medium-, and long-term action items based on the previous meetings.

It was acknowledged that prototypes of documentation reduction already exist, such as Project Joy at University of Colorado, where 360 million fewer clicks were made. However, Dr. Rossetti noted that this development does not disseminate across other providers or electronic health systems, particularly on a global scale where the same burden is being mitigated, but regulatory parameters may vary. These sessions' outputs were condensed into four actionable themes of accountability, evidence, education, and innovation, which then furnished calls to action for health systems, advocacy groups, and electronic health record (EHR) vendors. Participants concluded that the original purpose of clinical documentation, to foster doctor-patient care and communication, was obscured by reimbursement and regulatory requirements, then further exacerbated by EHR design and interface challenges. Dr. Rossetti emphasized that NIH-funded research on coding capture and interoperable EHR systems would serve to reduce the burden on medical providers.

Dr. Rosenbloom reiterated exemplars, the importance of a network of providers, and noted a publication on the topic as well as others is under submission. As of 2022, the initiative is now under project management by AMIA due to its demonstrated history of advocacy, of which the documentation burden was an unintended effect. Dr. Rossetti will head a task force with tentative benchmarks drafted over the next year.

Board members praised the scope of the effort relative to the size of the NLM grant. It was acknowledged that documentation was relatively minimal prior to Medicare reimbursement, specifically, and could be further reduced under a different payer structure. Members discussed the legality and compliance of redesigning EHR frameworks to minimize content, as well as prioritizing the medically-relevant decision as payable. EHR incentivization was also discussed to shift the focus from a payer-centric framework to usability and interoperability between systems, thereby reducing overall documentation time. Current EHR software metrics as well as potential artificial intelligence/machine learning programs which could optimize workflow individually and institutionally were noted.

# IX. APPOINTMENT OF NOMINATION COMMITTEE FOR BOR CHAIR

Neil Rambo, Chair, BOR

Drs. Brent Miller, Mary Mazanec, and Joseph Francis agreed to serve on the nominating committee for the next BOR chair. They will review eligible candidates and report to the BOR at the next meeting.

#### X. R25 CONCEPT CLEARANCE

Dr. Meryl Sufian, Division of Extramural Programs, NLM

Dr. Sufian presented the proposed NIH Research Education Program (R25) concept proposal, which would provide talented undergraduate and post-baccalaureate students with short-term research education experiences in biomedical informatics and data science careers to enhance diversity.

The NIH R25 program provides grants to support research educational activities that complement other formal training programs within NIH Institute and Center mission areas to foster the development of an effective national biomedical/behavioral/clinical research workforce, while encouraging students from underrepresented and diverse populations to pursue further studies or careers in research.

In 2021, NLM reissued the call for its Institutional Training Program in Biomedical Informatics and Data Science program (T15). It previously allowed undergraduates to participate in short-term training opportunities, but due to recent NIH policy changes, undergraduates are excluded from the new T15 awards. The proposed R25 program will help address that need by providing opportunities to undergraduates and developing a pipeline of future scientists interested in bioinformatics and data science research.

The proposed NLM R25 would further participation of undergraduate, post-baccalaureate, and graduate students from minority and underrepresented populations in training in biomedical informatics and data science. Applicant institutions will be expected to develop a short-term bioinformatics research education program that includes skills development courses/seminars/workshops to address relevant research areas.

The proposed program will assist in exposing the bioinformatics and data science fields to diverse groups of students in partnership with Minority Serving Institutions (MSIs) and/or Institutional Development Award (IDeA)-eligible institutions. Applicant organizations will be expected to establish collaborative partnerships between research-intensive institutions that have a prominent bioinformatic research training environment and MSIs or educational institutions in IDeA-eligible states that may not have the same resources.

**Motion:** The BOR approved the concept for the R25 program.

#### XI. CLOSED SESSION

The closed portion of the meeting took place from 3:45 p.m. to 4:15 p.m. The Board provided en bloc approval of 120 primary and 173 dual grants.

#### XII. ADJOURNMENT

Mr. Rambo adjourned the meeting at 4:15 p.m. on February 8, 2022.

# **Actions Taken by the Board of Regents:**

- Approval of the September 14, 2021, BOR meeting minutes.
- Approval of the February 6-7, 2024, meeting dates.
- Approval of R25 Concept Clearance
- En Bloc Grant Concurrence

Appendix A. Roster — Board of Regents

I certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

Patricia Flatley Brennan, RN, PhD	Neil Rambo, MLS
Director, National Library of Medicine	Chair, NLM Board of Regents